

User guide 7-day Solar Programmable Wall Switch

Applications

The TI072 programmable wall switch has been designed to control lights and motors:

Load types	Maximum load	Examples
Lights and resistive loads (except tungsten)	1800 W (15 A @ 120 V)	 fluorescent lights compact fluorescent lights (CFL) electronic ballasts sodium lamps block heaters
Tungsten lights	1440 W (12 A @ 120 V)	incandescent lightshalogen lights
Motors	1 hp	 pool filter pumps fans

Installation

Cut power at the circuit breaker to avoid electric shock.

- (2)Remove the existing switch. (For a 3-way installation, identify and label the wire that is connected to the "common" screw.)
- Install the new switch.
- 4 Apply power at the circuit breaker.

SINGLE-SWITCH INSTALLATION



EXISTING 3-WAY INSTALLATION



Connect the LOAD wire on the TI072 to the "common" wire, which you identified when removing the old switch. Connect the NEUTRAL wire to the neutral (white) wires. Connect the LINE and 3 WAY wires to the two remaining wires. At the other 3-way switch, connect the jumper wire between the "common" screw and the screw where the LINE wire of the TI072 is connected.

NEW 3-WAY INSTALLATION





This switch cannot be used if there is no neutral wire (white wires joint together) inside the electrical box.

Quick Start-up

Set the time and date before using the timer for the first time.

The TI072 will turn the lights on at sunset and turn them off at 11:00 pm by default. If these settings are appropriate for you, you only need to set the time and date (see shaded zone in the menu flowchart sheet). If the switch's sunset time does not correspond to the actual sunset time, see sections 5.3.3 and 5.3.4.



Indicates the mode of operation (see Section 5.1)	The \mathfrak{D} icon indicates the current program has been activated at sunset.
Indicates the keypad is locked (see Section 6)	
Indicates the time and day	POI off Indicates the load on/off state
Indicates the current program	Press this button to display today's sunrise time.
Briefly press this button to turn the lights on or off. See "Temporary	Press this button to display today's sunset time.
Override" in Section 5.1.4. Press for 3 seconds to enter the setup menus.	The LED illuminates when the load state is on.

5 Setup Menus

Ē Press the main button for 3 seconds to enter the setup menus. Refer to the menu flowchart sheet on how to navigate the menus. (3 sec.)

5.1 Mode Menu

You can use the Mode menu to select one of the three modes of operation (see sections 5.1.1 to 5.1.3).

5.1.1 Manual Mode ("9

In Manual mode, the TI072 operates like a regular switch. To turn the lights on or off, briefly press the main button. The *A* icon appears when the switch is in Manual mode.

5.1.2 Automatic Mode (L)

(b) 12:00 On P2

12:00

In Automatic mode, the TI072 turns the lights on or off according to the set programs (see Section 5.4). The (b) icon as well as the current program number are displayed.

5.1.3 Random Mode 🖽

In Random mode, the TI072 has no specific times to turn the lights on or off. This mode is designed to give the impression the house is occupied during your absence. It is similar to the Automatic mode except there is no fixed program. The programs are automatically set to different times by the TI072 every day. The m icon appears when the switch is in Random mode. The first "On" program occurs at sunset. Each "On" program lasts between 1 hour and 1 hour and 30 minutes; each "Off" program lasts between 15 and 30 minutes. The last "Off" program occurs between 10:30 pm and midnight.

5.1.4 Temporary Override

When the TI072 is in Automatic or Random mode, you can press the main button at any time to override the default state for the current program. The light will turn off if they are on and vice versa. The icon (On or Off) of the new state flashes to indicate that the state is temporary. The new state is maintained until you press the main button again or till the next "On" or "Off" program.

5.2 Time Menu

The time display flashes on the screen when the time has not yet been set or after a 4-hour power outage. Use the Time menu to select the time format (12-hour or 24-hour) and to set the clock and date. NOTE: The date is used to determine the sunset and sunrise times.





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5.3 Configuration Menu (Conf)

Use the Configuration menu to set the following parameters (see sections 5.3.1 to 5.3.4).

5.3.1 Backlight mode (SCRN)

The screen is lit at high intensity for 8 seconds when you press any button. The rest of the time, depending on the backlight mode selected, the screen behaves as follows:

Scrn Off: The screen is not lit.

Scrn On HI: The screen is lit at high intensity.

Scrn On LO: The screen is lit at low intensity (default mode).

5.3.2 Automatic Daylight Savings Time Changeover (DLS)

When automatic daylight savings time changeover is on (DLS On), the TI072 changes to daylight savings time (summer time) at 2:00 am on the second Sunday of March and changes back to normal time (winter time) at 2:00 am on the first Sunday of November. This function is enabled (DLS On) by default.

5.3.3 Latitude and Longitude Coordinates (LAT and LONG)

The coordinates are used to turn the lights on at sunset and off at sunrise. The latitude is set to +45 and longitude to -75 by default. These settings provide approximate sunset and sunrise times for most North American cities. To obtain your city's coordinates (or those of a nearby city), see the coordinates table. You can also obtain this information at **www.aubetech.com/timer** or with a Global Positioning System (GPS) device. The accuracy of the sunset and sunrise times depends on the accuracy of the coordinates you enter for your city.

NOTE: Enter a negative value for a south latitude or a west longitude.

5.3.4 Correction Factor (ADJ)

If your city's time zone is based on political or economic boundaries instead of its coordinates, your lights might switch on or off too early or too late with respect to sunrise and sunset. In this case, apply a correction factor (+1 or -1 hour; refer to addendum). Otherwise, leave it at 0 (default value).

5.4 Program Menu (Prog)

Use the Program menu to set the programs; i.e. the times you want the lights to turn On or Off when the switch is in Automatic mode. To set a program, proceed as follows:

- Select a program number (see section 5.4.1)
- Set the day(s) of the program (see section 5.4.2)
- **B** Set the program start time (see section 5.4.3)

5.4.1 Selecting a program number

You can set up to 21 "On" programs ("P01 On" to "P21 On") and 21 "Off" programs ("P01 Off" to "P21 Off"). For example, select an "On" program to set when to turn the lights on; select an "Off" program to set when to turn the lights off.

On POI I Prog "P01 On" "P01 Off"

5.4.2 Setting the day(s) of the program

After selecting a program, set the day(s) of the program. You can select a specific day, all 7 days or "none". Choose "none" for any unused program.

5.4.3 Setting the program start time

After setting the day(s) of the program, set its start time. You can select either a specific time, the sunset time or the sunrise time:

- To select a specific time:
 - (1) Advance to the hour setting and select the hour.(2) Advance to the minutes setting and select the minutes.

To select sunset or sunrise time:

(1) Advance to the hour setting and select the sunset time or sunrise time. (When you scroll, the sunset time D and sunrise time D appear between 11 pm and 12 am.)

(2) To enter an offset (from -70 to +70 minutes in 10-minute increments) between the sunset or sunrise time and the program start time, advance to the minutes setting and change the minutes.

• **EXAMPLE**: If the sunset time is 6:13 pm and you change the minutes to display 6:43 pm, you have entered a delay of 30

minutes. If, later in the year, the sunset time is 4:01 pm, the program will start at 4:31 pm.

 NOTE: When you enter an offset, # appears along with or when you display the sunset or sunrise time. To remove the offset, display the sunset or sunrise time and change the minutes until # disappears.

5.4.4 Examples

Example 1: The lights turn on at sunset and off at 11:00 pm every day (default setting).

Program	Days	Time	Program	Days	Time
P01 On	All 7 days	sunset	P01 Off	All 7 days	11:00 pm
P02 On to P07 On	None	—	P02 Off to P07 Off	None	—

Example 2: The lights turn on at sunset and off at sunrise every day.

Program	Days	Time	Program	Days	Time
P01 On	All 7 days	sunset	P01 Off	All 7 days	sunrise
P02 On to P07 On	None		P02 Off to P07 Off	None	

Example 3: The lights turn on at 8:00 pm every day and turn off at 10:00 pm every day except on Saturday night when they turn off at 1:00 am.

Program	Days	Time	Program	Days	Time
P01 On	All 7 days	8:00 pm	P01 Off	Sunday (Su)	10:00 pm
P02 On	None	—	P02 Off	Monday (Mo)	10:00 pm
P03 On	None	_	P03 Off	Tuesday (Tu)	10:00 pm
P04 On	None	_	P04 Off	Wednesday (We)	10:00 pm
P05 On	None	—	P05 Off	Thursday (Th)	10:00 pm
P06 On	None	—	P06 Off	Friday (Fr)	10:00 pm
P07 On	None	_	P07 Off	Sunday (Su)	1:00 am

Be careful about overlapping!

If you set "P01 Off" at 10:00 pm for all 7 days and set "P02 Off" to 11:00 pm for Saturday. On Saturday, the lights will turn off at 10:00 pm, not 11:00 pm since "P01 Off" is set to an earlier time than "P02 Off".

6 Keypad Lock 🔒

When the keypad is locked, the \bigcirc icon appears on the screen and the only change permitted is the changing of the state. For example, if the lights are off, they will turn on when you press the main button. However, in Automatic mode, the default state for the current program will be overridden until the next program starts. If you press the main button again before the start of the next program, the lights return to their initial state. To lock or unlock the keypad, press the buttons in the following order:



NOTE: You must perform the whole procedure in an interval of 2 seconds. If the procedure was not properly performed, wait another 2 seconds before retrving.

712:00⁷

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7 Reset to default Settings

To return the switch to its default settings, simultaneously press both main and left buttons and hold. The software version will appear for 5 seconds. **RST** will appear for the next 5 seconds. Release the buttons when all segments appear on the screen. The switch is now reset (see default settings in the menu flowchart).



The display is faded or irregular.	The ambient temperature is either below or above switch's operating temperature.
The display disappears when you toggle the other switch.	Swap the LINE and 3-WAY wires.
The sunset or sunrise time is inaccurate.	 The date or time is wrong (see section 5.2). The longitude or latitude is wrong (see section 5.3.3). The correction factor is wrong (see section 5.3.4). You have entered an offset (see section 5.4.3).

9 Specifications

Supply: 120 VAC, 60 Hz

Maximum load: 1800 watts

Operating temperature range: -15 °C to 50 °C (5 °F to 122 °F)

Storage temperature range: -40 °C to 60 °C (-40 °F to 140 °F) Power outage: The screen is blank. Only the time must be set if the outage lasts more than 4 hours; all other settings and programs are permanently saved.

Latitude range: from -65° to +65°

Solar table precision: +/- 11 min. (within ±60° latitude) Certification: UL (c UL us)



AUBE warrants this product, excluding battery, to be free from defects in the workmanship or materials, under normal use and service, for a period of three (3) years from the date of purchase by the consumer. If at any time during the warranty period the product is determined to be defective or malfunctions, AUBE shall repair or replace it (at AUBE's option).

- If the product is defective
- return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it, or
- contact AUBE. AUBE will make the determination whether the product should be returned, or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by AUBE that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer. AUBE's sole responsibility shall be to repair or replace the product within the terms stated above. AUBE SHALL NOT BE LIABLE FOR ANY LOSS OR DAM-AGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some provinces, states or regions do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to vou.

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This warranty gives you specific legal rights, and you may have other rights which vary according to the province, state or region.

Technical Assistance

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TI070 / TI071 / TI072

Menu flowchart

Organigramme des menus Organigrama de los menus



Longitude/Latitude/Correction factor

Longitude/Latitude/Facteur de correction Longitud/Latitud/Factor de corrección If your city is not listed below, use a nearby city or refer to the website "www.aubetech.com/timer". Si votre ville n'est pas dans la liste, utiliser une ville avoisinante ou consulter le site web «www.aubetech.com/minuterie». Si su ciudad no figura en la lista, buscar una ciudad vecina o consultar el sitio web "www.aubetech.com/timer".

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KITCHENER 43 -80 0 LONDON 42 -81 0 MISTASSINI 50 -73 0 MISTASSINI 50 -73 0 MONTREAL 45 -73 0 NIAGARA 43 -79 0 OSHAWA 43 -78 0 OTTAWA - GATINEAU 45 -75 0 QUEBEC 46 -71 0 REGINA 50 -104 1 RICHMOND 49 -123 0 ROUYN-NORANDA 48 -79 0 SASKATOON 52 -106 1 SEPT-ILES 50 -66 -1 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST. ANTHONY 51 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TO	KELOWNA	50	-119	0	
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MISTASSINI 50 -73 0 MONTREAL 45 -73 0 NIAGARA 43 -79 0 OSHAWA 43 -78 0 OTTAWA - GATINEAU 45 -75 0 QUEBEC 46 -71 0 REGINA 50 -104 1 RICHMOND 49 -123 0 ROUYN-NORANDA 48 -79 0 SASKATOON 52 -106 1 SEPT-ILES 50 -66 -1 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST. ANTHONY 51 -52 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 VICTORIA 49 -123 0	LONDON	42	-81	0	
MONTREAL 45 -73 0 NIAGARA 43 -79 0 OSHAWA 43 -78 0 OTTAWA - GATINEAU 45 -75 0 QUEBEC 46 -71 0 REGINA 50 -104 1 RICHMOND 49 -123 0 ROUYN-NORANDA 48 -79 0 SASKATOON 52 -106 1 SEPT-ILES 50 -66 -1 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST. ANTHONY 51 -52 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VICTORIA 49 -123 0	MISTASSINI	50	-73	0	
NIAGARA 43 -79 0 OSHAWA 43 -78 0 OTTAWA - GATINEAU 45 -75 0 QUEBEC 46 -71 0 REGINA 50 -104 1 RICHMOND 49 -123 0 ROUYN-NORANDA 48 -79 0 SASKATOON 52 -106 1 SEPT-ILES 50 -66 -1 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST. ANTHONY 51 -55 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VICTORIA 49 -123 0 VICTORIA 49 -123 0	MONTREAL	45	-73	0	
OSHAWA 43 -78 0 OTTAWA - GATINEAU 45 -75 0 QUEBEC 46 -71 0 REGINA 50 -104 1 RICHMOND 49 -123 0 ROUYN-NORANDA 48 -79 0 SASKATOON 52 -106 1 SEPT-ILES 50 -66 -11 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST CATHARINES 43 -79 0 SUDBURY 46 -81 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WINDSOR 42 -83 1	NIAGARA	43	-79	0	
OTTAWA - GATINEAU 45 -75 0 QUEBEC 46 -71 0 REGINA 50 -104 1 RICHMOND 49 -123 0 ROUYN-NORANDA 48 -79 0 SASKATOON 52 -106 1 SEPT-ILES 50 -66 -1 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST CATHARINES 43 -79 0 SAINT JOHN (NB) 45 -66 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 <td>OSHAWA</td> <td>43</td> <td>-78</td> <td>0</td>	OSHAWA	43	-78	0	
QUEBEC 46 -71 0 REGINA 50 -104 1 RICHMOND 49 -123 0 ROUYN-NORANDA 48 -79 0 SASKATOON 52 -106 1 SEPT-ILES 50 -66 -1 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST CATHARINES 43 -79 0 SAINT JOHN (NB) 45 -66 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WINDSOR 42 -83 1 WINNIPEG 49 -97 0	OTTAWA - GATINEAU	45	-75	0	
REGINA 50 -104 1 RICHMOND 49 -123 0 ROUYN-NORANDA 48 -79 0 SASKATOON 52 -106 1 SEPT-ILES 50 -66 -1 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST CATHARINES 43 -79 0 SAINT JOHN (NB) 45 -66 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WINDSOR 42 -83 1 WINNIPEG 49 -97 0	QUEBEC	46	-71	0	
RICHMOND 49 -123 0 ROUYN-NORANDA 48 -79 0 SASKATOON 52 -106 1 SEPT-ILES 50 -66 -1 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST CATHARINES 43 -79 0 SAINT JOHN (NB) 45 -66 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WINDSOR 42 -83 1 WINNIPEG 49 -97 0	REGINA	50	-104	1	
ROUYN-NORANDA 48 -79 0 SASKATOON 52 -106 1 SEPT-ILES 50 -66 -1 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST CATHARINES 43 -79 0 SAINT JOHN (NB) 45 -66 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	RICHMOND	49	-123	0	
SASKATOON 52 -106 1 SEPT-ILES 50 -66 -1 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST CATHARINES 43 -79 0 SAINT JOHN (NB) 45 -66 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	ROUYN-NORANDA	48	-79	0	
SEPT-ILES 50 -66 -1 SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST. ANTHONY 51 -55 0 ST CATHARINES 43 -79 0 SAINT JOHN (NB) 45 -66 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	SASKATOON	52	-106	1	
SHERBROOKE 45 -71 0 ST. ANTHONY 51 -55 0 ST CATHARINES 43 -79 0 SAINT JOHN (NB) 45 -66 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0	SEPT-ILES	50	-66	-1	
ST. ANTHONY 51 -55 0 ST CATHARINES 43 -79 0 SAINT JOHN (NB) 45 -66 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	SHERBROOKE	45	-71	0	
ST CATHARINES 43 -79 0 SAINT JOHN (NB) 45 -66 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	ST. ANTHONY	51	-55	0	
SAINT JOHN (NB) 45 -66 0 ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 YELLOWKNIFE 62 -114 1	ST CATHARINES	43	-79	0	
ST. JOHN'S (NFLD) 47 -52 0 SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	SAINT JOHN (NB)	45	-66	0	
SUDBURY 46 -81 0 THUNDER BAY 48 -89 1 TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	ST. JOHN'S (NFLD)	47	-52	0	
THUNDER BAY 48 -89 1 TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	SUDBURY	46	-81	0	
TORONTO 43 -79 0 TROIS-RIVIÈRES 46 -72 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	THUNDER BAY	48	-89	1	
TROIS-RIVIÈRES 46 -72 0 VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	TORONTO	43	-79	0	
VANCOUVER 49 -123 0 VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	TROIS-RIVIÈRES	46	-72	0	
VICTORIA 49 -123 0 WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	VANCOUVER	49	-123	0	
WHITEHORSE 60 -135 1 WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	VICTORIA	49	-123	0	
WINDSOR 42 -83 1 WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	WHITEHORSE	60	-135	1	
WINNIPEG 49 -97 0 YELLOWKNIFE 62 -114 1	WINDSOR	42	-83	1	
YELLOWKNIFE 62 -114 1	WINNIPEG	49	-97	0	
	YELLOWKNIFE	62	-114	1	

USA					
City	Lat.	Long.	Adj.		
ABILENE	32	-99	1		
ALBUQUERQUE	35	-106	0		
ALLENTOWN	40	-75	0		
AMARILLO	35	-101	1		
ANCHORAGE	61	-149	1		
ATLANTA	33	-84	1		
AUSTIN	30	-97	0		
BAKERSFIELD	35	-119	0		
BALTIMORE	39	-76	0		
BATON ROUGE	30	-91	0		
BEAUMONT	30	-94	0		
BILLINGS	45	-108	0		
BIRMINGHAM	33	-86	0		
BOISE	43	-116	1		
BOISE CITY	36	-102	1		
BOSTON	42	-71	0		
BROWNSVILLE	25	-97	0		
BUFFALO	42	-78	0		
CEDAR RAPIDS	41	-91	0		
CHARLOTTE	35	-80	0		
CHATTANOOGA	35	-85	1		
CHEVENNE	41	-104	0		
CHICAGO	41	-87	0		
CINCINNATI	39	-84	1		
	41	-81	0		
COLOMBUS	39	-82	0		
	38	-104	0		
	27	- 97	0		
	32	-97	0		
	30	-104	0		
	11	-104	0		
	41	-93	1		
	42	-03	0		
	21	106	0		
EL FASO	12	-100	0		
	42	-00	0		
	27	-123	0		
	12	-07	1		
	43	-03	0		
	20	-00	0		
	41	-65	1		
	30	-119	0		
GRAND RAPIDS	42	-85	1		
GREAT FALLS	47	-111	0		
GREENSBORD	30	-79	0		
HAMPION	37	-76	0		
HARTFORD	41	-72	0		
HONOLULU	21	-157	0		
HOUSTON	29	-95	0		
HUNISVILLE	34	-86	0		
INDIANAPOLIS	39	-86	1		
JACKSON	32	-90	0		
JACKSONVILLE	30	-81	0		
KANSAS CITY	39	-94	0		
KNOXVILLE	35	-83	1		
LAKEWOOD	39	-105	0		

USA					
City	Lat.	Long.	Adj.		
LANSING	42	-84	1		
LAREDO	27	-99	1		
LAS VEGAS	36	-115	0		
LEXINGTON	38	-84	1		
LINCOLN	40	-96	0		
LITTLE ROCK	34	-92	0		
LONG BEACH	33	-118	0		
LOS ANGELES	34	-118	0		
LOUISVILLE	38	-85	1		
LUBBOCK	33	-101	1		
MACON	32	-83	1		
MADISON	43	-89	0		
MEMPHIS	35	-90	0		
MIAMI	25	-80	0		
MILWAUKEE	43	-87	0		
MINNEAPOLIS	44	-93	0		
MOBILE	30	-88	0		
MODESTO	37	-120	0		
MONTGOMERY	32	-86	0		
NASHVILLE	36	-86	0		
NEW ORLEANS	29	-90	0		
NEW YORK	40	-74	0		
NORFOLK	36	-76	0		
OKLAHOMA CITY	35	-97	0		
OMAHA	41	-95	0		
ORLANDO	28	-81	0		
OVERLAND PARK	38	-94	0		
OXNARD	34	-119	0		
PEORIA	40	-89	0		
PHILADELPHIA	40	-75	0		
PHOENIX	33	-112	0		
PITTSBURG	40	-79	0		
PLANO	33	-96	0		
PORTLAND	45	-122	0		
PROVIDENCE	41	-71	0		
RALEIGH	35	-78	0		
RAPID CITY	44	-103	1		
RENO	39	-119	0		
RICHMOND	37	-77	0		
ROANOKE	37	-79	0		
ROCHESTER	43	-77	0		
ROCKFORD	42	-89	0		
SACRAMENTO	38	-121	0		
SALT LAKE CITY	40	-111	0		
SAN ANTONIO	29	-98	1		
SAN DIEGO	32	-117	0		
SAN FRANCISCO	37	-122	0		
SANTA ROSA	38	-122	0		
SAVANNAH	32	-81	0		
SEATTLE	47	-122	0		
SHREVEPORT	32	-93	0		
SOUTH BEND	41	-86	0		
SPOKANE	47	-117	0		
SPRINGFIELD (IL)	39	-89	0		

SPRINGFIELD (MA)

42 -72

0

USA							
City Lat. Long. Adj.							
SPRINGFIELD (MO)	37	-93	0				
ST. LOUIS	38	-90	0				
SYRACUSE	43	-76	0				
TALLAHASSEE	30	-84	1				
TAMPA	27	-82	0				
TOLEDO	41	-83	1				
TOPEKA	39	-95	0				
TUCSON	32	-110	0				
TULSA	36	-95	0				
VIRGINIA BEACH	36	-75	0				
WACO	31	-97	0				
WASHINGTON DC	38	-77	0				
WICHITA	37	-97	0				
WINSTON-SALEM	36	-80	0				
YONKERS	40	-73	0				
YOUNGSTOWN	41	-80	0				

MÉXICO				
Ciudad	Lat.	Long.	Adj.	
TIJUANA	32	-117	0	
NOGALES	31	-111	0	
CIUDAD JUAREZ	31	-106	0	
MATAMOROS	26	-97	0	
NUEVO LAREDO	27	-99	1	
MONTERREY	25	-100	1	
CHIHUAHUA	28	-106	0	
MAZATLÁN	23	-106	0	
TAMPICO	22	-98	1	
ZACATECAS	22	-102	1	
LÉON	21	-101	1	
LA PAZ	24	-110	0	
MEXICO CITY	19	-99	1	
PUEBLA	19	-98	1	
GUADALAJARA	20	-103	1	
OAXACA	17	-96	0	
ACAPULCO	16	-100	1	
CANCUN	21	-86	0	
MERIDA	21	-89	0	

PUERTO RICO				
Ciudad	Lat.	Long.	Adj.	
SAN JUAN	18	-66	0	

REPÚBLICA DOMINICANA			
Ciudad	Lat.	Long.	Adj.
SANTO DOMINGO	18	-70	1